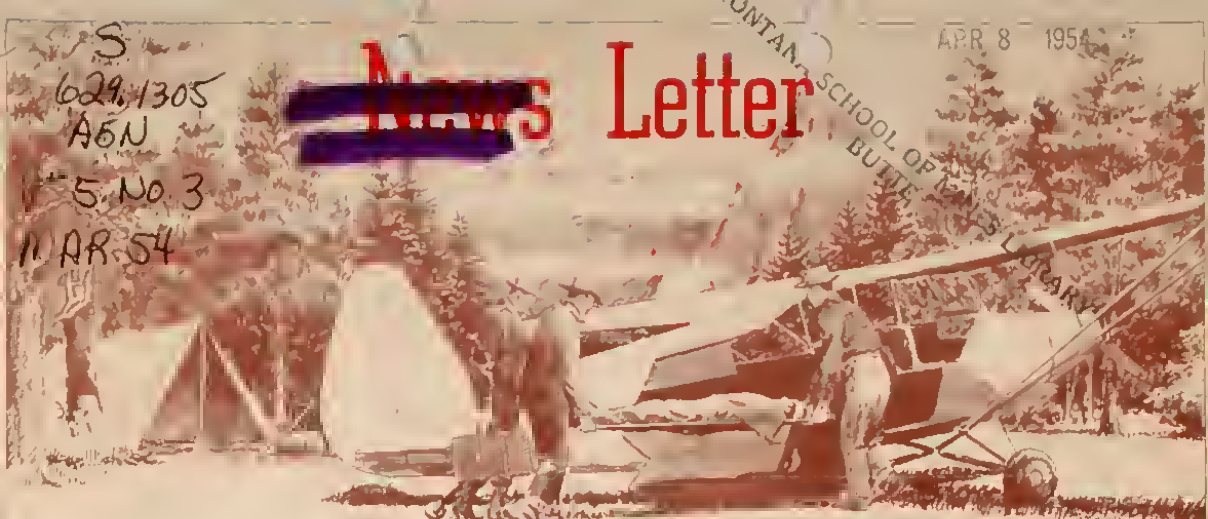




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MONTANA AERONAUTICS COMMISSION

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REPORT OF THE DIRECTOR

The following items are taken from the monthly report of the Montana Aeronautics Commission by the director and submitted to the commission at the regular meeting on March 1st, 1954.

Annual Crop Spraying School

The annual crop spraying school for pilots, sponsored by the Montana Aeronautics Commission, was held at the State College in Bozeman on February 9th and 10th. There were 74 pilots registered for the school which was conducted by a series of panels with flight operators, pilots and college people sitting in on the panels for the various subjects covered.

Annual Meeting of the Montana Aviation Trades Association

The annual meeting of the Montana Aviation Trades Association was held in Bozeman on February 13th and 14th. Feature speakers included Charles Parker, secretary of the National Aviation Trades Association, who spoke on the program covering the value of the National Aviation Trades Association to flight operators and to the industry.

Glenn Dwyer, president of the Minnesota Aviation Trades and vice president of airport administration for NATA, covered the subject of airport leases. Airport managers and municipal officials from all over the state attended this part of the program and an interesting panel discussion brought out many suggestions on more efficient airport administration in the interest of both the community and the flight operator.

Flying Farmers Pilot Refresher Program

A committee from the Flying Farmers Association met with the director and CAA officials in Bozeman following the Montana Aviation Trades Association meeting. A pilot briefing program was outlined for a meeting in Lewistown on April 25th for the purpose of demonstrating radio flight equipment and late model aircraft to pilots interested in being briefed on aircraft operation.

Aviation Education Clinic

The Montana Aeronautics Commission is working with the State Department of Public Instruction, the University of Montana and the Eastern Montana College of Education in sponsoring two aviation education clinics in Montana this summer. Brochures announcing the workshop have been printed and will be distributed by the University and the Eastern Montana College of Education to schools throughout the state and to schools in adjoining states.

Aeronautics Chart

The director met with Mr. Harold Pirommel, sales manager for the Jeppesen Company and Mr. Young, cartographer for the Jeppesen Company of Denver at which time specifications for an aeronautics chart for Montana were drafted. These specifications cover the production of 10,000 copies of an aeronautics chart with 2,500 copies of the finished chart delivered and provisions for 2,500 additional charts each year for a total of four consecutive years.

ARMY TO DELIVER 272 HELICOPTERS TO GUARD UNITS

The Army has ordered delivery of 272 helicopters to National Guard units, with approximately 88 to be delivered within the next 12 months, it was announced.

Aviation units in the First, Second, and Third Army Areas will receive Bell H-13's, while the remaining three Army areas will be supplied with Hiller H-23's. The helicopter will be used to train National Guard personnel and in photography, air ambulance service, and other missions, the Army said, and will also be available for local emergency use by the Guard. Am. Avn. Daily

PIPER ADDS NEW FEATURES TO P-18-A

The 1954 Piper PA 18-A agricultural aircraft incorporates changes and improvements, including a quick dump valve for emergency use, higher density application of chemicals, and improved flow of dry chemicals.

The dump valve can dump a full load of the 110-gallon tank in seven seconds by a pull of a lever in the cockpit. Now standard on Piper sprayer is a one-inch fan-driven centrifugal pump located in direct line of propeller blast. Twenty-four nozzles are standard on spray booms which also have been drilled and tapped to receive 22 additional nozzles. Forward facing air scoop installed for dry chemicals directs air downward, thus preventing dust from remaining banked up on sides of hopper.—Am. Avn. Daily

CAA LISTS 257,778 ACTIVE PILOTS

CAA's Office of Aviation Safety has concluded its statistical breakdown on the number of certificated pilots in the U. S. as of January 1, 1953. Total of active pilots was listed at 257,778 out of a registration of 634,158. Certificated technicians totaled 126,603 for a grand total of 760,761 certificated numbers.

Pilots	Active*	Total	Technicians	Total
Student	52,214	52,214	Mechanics	27,391
Private	138,929	376,286	Parachute Rigger	2,115
Commercial	56,515	193,575	Ground Instructor	26,104
ATP	9,545	11,357	Dispatcher	2,240
Helicopter, only**	19	33	ATC Tower Operator	13,392
Helicopter only**	503	503	Radio Operator	1,014
Other	53	190	Navigator	1,310
			Flight Engineer	3,637

*Based on current medical certificates. **Total of 1,716 private, commercial and powered aircraft hold certificates. In addition, 441 in addition, 2,862 pilots of powered aircraft hold certificates. Am. Avn. Daily

NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—"To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense, to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform aviation laws and regulations; and to otherwise encourage cooperation and mutual aid among the several states."

MONTANA AERONAUTICS COMMISSION PURCHASES NEW AIRCRAFT

The State Purchasing Agent has purchased a new 180 hp engine for the Montana Aeronautics Commission. Bid received by the Purchasing Agent was reviewed at the last regular meeting of the Montana Aeronautics Commission on March 10th and the commission approved the purchase of the new airplane from the low bidder, the Montana Flying Service, of Helena, Montana.

The commission in accepting the bid for the subject airplane requested the State Purchasing Agent to re-advertise the airplane, now operated by the commission, for sale instead of trading it in on the new airplane.

FOR SALE

If you are in the market for a good airplane it is suggested that you submit a bid to A. M. Johnson, Ex Officio State Purchasing Agent, State Purchasing Department, Capitol Building, Helena, Montana.

Bids for the sale of the Stinson airplane operated by the commission will be advertised shortly and the description of the airplane is listed as follows:

1948 Model 108 Stinson Station Wagon, Serial No. 4188, Engine 31964. Approximately 1,000 hours total time. Approximately 250 hours since major overhaul. Condition Good. Relicensed February 1954.

Equipment includes low frequency radio receiver, transmitters 122.1, 122.5, 122.8, 3023.5 and Marker Beacon Receiver and LF DF loop.

Instruments: Bank and turn, rate of climb, clock and standard instruments.

Accessories: Wheel pants, sun visors, scott tail wheel. Aircraft equipped with Sensenich wood propeller, 51 inch.

Color of aircraft Maroon. Aircraft may be inspected at Helena Airport by appointment.

Contact office of the Montana Aeronautics Commission.

TRENDS AND FORECASTS

Greater Air Force optimism about eventual development of an atomic-powered airplane may be due in part to substantial progress reported in Boeing Airplane's study on application of nuclear powerplants to aircraft. Avn. Daily.

Crosswind landing gear is going on new Boeing B-52 jet bomber.

Change to 3023.5 KC from 3105 automatically went into effect March 15. All plane transmitters must be converted by that date.

Betty Skelton, manager, Aeronautical Electronics, Inc., Box 6043, Raleigh, N. C., says company is offering 3023.5 crystals for \$4 each or \$3.75 for three or more.

A 3800-MPH wind tunnel to test wing forms for supersonic aircraft being built by Sydney University with funds provided by the Australian government, should be completed next month. A similar tunnel is being built at Salisbury South Australia. Am. Avn. Daily.

San Diego reports say Convair will shortly ship its Navy vertical rise to Moffett Field for initial tethered tests. The Convair vertical riser is powered by a Westinghouse T40 turbine engine and takes off and lands on its tail.—Am. Avn. Daily.

There is a strong body of opinion in Britain that money should be spent on speeding vertical take-off experimentation rather than on expanding present airfields. Am. Avn. Daily.

RADIO-CONTROLLED AIRPORT LIGHTS EVALUATED

Radio-controlled automatic airport lighting system is being evaluated by Special Committee 56 of the Radio Technical Commission for Aeronautics. Perfection of such a system would increase the number of landing fields, unattended at night which would be available in emergencies. Preliminary experiments have been conducted by an airline using smaller airports. Method has been to use radio receiver with a switching mechanism installed at the airport. Approaching pilot turns on airport lights by pressing a microphone switch of his aircraft transmitter a predetermined number of times. Lights are extinguished by similar action after take-off.

Committee 56 members include representatives of ATA, ARINC, ALPA, AOPA, Navy, AF Coast Guard, FCC, and CAA. Am. Avn. Daily.

AIR TRACTOR PRICES ARE LISTED

List prices for the Central Aircraft Air Tractor, specially designed agricultural aircraft, have been announced as follows: Model 101 A, \$14,975; Model 101-B, \$12,475; and Model 101-C, \$11,780. All prices are CAF Yakima, Wash. The A model is ready to operate. B requires buyer to furnish engine prop and mount, and C requires buyer to furnish dust chute. Prices may be more. Am. Avn. Daily.

REGULATIONS FOR OPERATION C AGRICULTURAL AIRCRAFT

Pilot Registration

1. It is required that all pilots operating aircraft in Montana register their CAA airman's certificate annually on or before April 1st with the office of the Montana Aeronautics Commission. Registration will be on the approved form provided for this purpose. The registration fee is \$1.00. A registration certificate will be issued as evidence of compliance. (All registered pilots will receive the News Letter published by the Montana Aeronautics Commission.)

Pilot registration is required by student pilots, private pilots, commercial pilots and airline pilots who are not engaged in scheduled interstate airline operations.

Agricultural Pilot Registration

2. It is required that all pilots operating aircraft for the distribution of chemicals, seeds or bait, be registered annually with the office of the Montana Aeronautics Commission. Registration will be made on the approved form provided for this purpose. All agricultural pilots will also be registered in compliance with (1) above.

Agricultural Aircraft Registration

3. It is required that all aircraft equipped for the distribution of chemicals, seeds or bait, be registered annually with the office of the Montana Aeronautics Commission. Registration will be made on the approved form provided for this purpose. A registration plate will be furnished by the Commission which will be attached to the cowl of the aircraft on the left side immediately ahead of the fire wall.

Insurance

4. All agricultural aircraft equipped for the distribution of chemicals, seeds or bait will currently be covered by an insurance policy, which insures the owner of the aircraft and any other person using or responsible for the use of such aircraft with the consent, express or implied, of such insured, against loss from liability on account of injury to or death of any one person in the amount of at least \$25,000.00, and against loss from liability on account of injury to or death of more than one person in the amount of at least \$50,000.00, and against loss from liability on account of damage to property of others in the amount of at least \$25,000.00; provided, however, that no such insurance coverage shall be required of agricultural aircraft so equipped which are operated on a non-commercial basis and not for hire, in connection with the distribution of chemicals, seeds or bait only upon lands owned or leased by the owner of such agricultural aircraft.

Acceptable evidence of insurance will be a letter from an authorized insurance company giving dates of coverage, the amounts thereof, and listing the aircraft covered and the owner's name, together with a statement from such insurance company that it will promptly notify the Montana Aeronautics Commission of any change in or cancellation of such insurance policy.

NOTE: It will be the responsibility of the pilot, the flight operator and the aircraft owner to see that regulations are complied with.

It is suggested that applicants fill out all forms completely and be certain that all requirements listed on the forms have been complied with.

PENALTY

Failure to comply with the above regulations is a misdemeanor and punishable by a fine of not more than \$500.00 or by imprisonment in the county jail for not more than 90 days or both. Ref: Sections 1-204 and 1-301, Revised Codes of Montana, 1947; Regulations of the Montana Aeronautics Commission.

CONTROL OF SAGEBRUSH BY SPRAYING REVEALED

Much of eastern Oregon's sagebrush-covered land may become much more valuable for grazing as a result of two years of spray research conducted by the range and live stock experiment station at Burns.

The station announced it has found that "big sagebrush can be controlled easily" by spraying it with 2, 4-D or 2, 4, 5-T.

Grass production on these lands can be doubled or tripled by a single spraying, provided good grazing methods are used in the years after the spray is applied.

The work which began in May, 1952, "clearly points out the place of chemical spraying as a means of retaining the grass-sagebrush relationship found by the pioneers," Dean F. E. Price of the Oregon agricultural experiment station said.

Spraying costs \$3 to \$4 an acre, which is as much or more than the land is worth. But it really pays off in increased grass production, and should make the land support many more cattle.

The experiment station, financed by the U. S. department of the Oregon State college, used a 40-acre plot. It found that more than 85 percent of the sagebrush can be killed by spraying in May.

The plot was sprayed in May, 1952. In the 1951 season, before spraying, the grass production was 280 pounds per acre. In 1952 it increased to 305 pounds, and in 1953, the grass production soared to 728 pounds. The plot was grazed each August.

When the sagebrush is killed, the grass has a much better chance of growing. The increase in grass production amounts to a ton on each four or five acres.

After spraying, the grass output can be maintained by proper grazing methods and range management.

The experiments were conducted by Donald Hyder, range conservationist at the experiment station. Hyder said aerial spraying is the cheapest method. He recommended against spraying lands covered with little sagebrush, because the soil on such lands is so poor it will not grow good grass. Portland Oregon Journal.

FOR SALE

Cessna 120, N72241, licensed to 12-30-54, electrical system, jump seat, wheel extensions, metal prop, fabric A-1, TT 630.10, 110:40 since top overhaul. Price \$1,500.00. Write or call Lloyd Adams, Sky Repair, Box 218, Phone 1120, Glendive, Montana.

AVIATION INDUSTRY FORECAST Aviation Week—March 15, 1954

This will be another good year for aviation. Sales volume for manufacturers of airplanes, engine parts, and accessories will climb about 10% over the postwar record \$9-billion sales total for 1949. Major trunk airlines will boost gross revenue and net income but trouble looms ahead for local service lines and non-scheduled operators.

Commercial Market

Helicopter manufacturing and operations will expand during 1954 with increasing emphasis on commercial products. Both the 40-45-passenger transport helicopter and the smaller 4-6-place design, aimed at a variety of industrial and agricultural applications will enter the commercial market during 1954.

Utility aircraft production should remain steady at a 4,000 plane level during 1954. Main effort will be devoted to twin engine equipment aimed at the expanding business flying market. Most of these trends should carry into 1955.

The New Doctrine

Key to the future of the aviation market, at least for the next three years, is the new airpower doctrine formulated during the closing months of 1953 by the National Security Council and endorsed by President Eisenhower. It is the blue-print for both military and civil aviation policy during the three remaining years of the President's current term. Its military application resulted in the "new look" for U.S. strategic policy now being implemented by the Defense Department. Details of the new doctrine's civil application are now being studied by the Air Coordinating Committee in preparation of a detailed policy to be submitted to President Eisenhower. From the committee's study will emerge a new civil aviation policy to match its military counterpart.

The new strategic doctrine calls for building and maintaining two specific types of military forces. First, a force capable of swift and devastating retaliation for any major aggression. Second, mobile task forces that can function as a military "fire department" hurrying to any point on the globe to extinguish minor aggression.

Devastating Retaliation

Air Power will dominate both types of forces. For the swift and devastating retaliation directed at the enemy's heartland, the new defense doctrine will rely on atomic and hydrogen weapons delivered by the long-range fighters of the Air Force Strategic Air Command. For the fire department task forces, airpower is required to provide the mobility to rush them to the scene of the emergency and the heavy punch necessary to blast out the fire.

The National Security Council has made it clear both to the Defense Department and to foreign nations that U. S. airpower will use atomic weapons against military targets. It counts any type of future aggression. It is apparent that top policy makers have learned a lesson from the failure to use tactical atomic weapons against the Chinese Communist armies during the early phases of their aggression in Korea.

The most serious weakness apparent so far in the military implementation of the new strategic doctrine is the lack of sufficient air transport to provide the Army with the long-range mobility it must have to do a more effective job with fewer men. However, a major reorganization of military air transport has been building in the Pentagon and this may solve this critical outfit problem soon.

Job for the Future

The future of American airpower has been brightened considerably by the new strategic doctrine but it still leaves many problems looming for both the aircraft manufacturers and the airlines. According to present plans the manufacturing industry should stabilize in 1956 at a rate of about 5,000 new military planes annually plus a considerable maintenance and modification workload on military airpower already in being. The airlines will probably be given a real stake in operating many phases of the military airlift required by the new strategic doctrine.

If the promise of the new airpower doctrine is to be converted into the reality of a national airpower that is truly second to none, a concerted effort will be required by all segments of the aircraft industry and all government officials whose responsibilities concern aviation development. This effort should be aimed at hammering home to the public and their elected representatives in Congress the problems in achieving the quantity and quality of airpower that is necessary for survival. Robert Holz

AUTOMATIC OPERATION OF AIRPORT LIGHTING SYSTEMS

The Radio Technical Commission for Aeronautics has a special committee investigating and evaluating an airport lighting system which is turned on by a pilot pressing his airborne transmitter button.

McLaughlin, Illinois, reports that two sound-operated devices for controlling airport lights have been installed in Illinois and are giving very satisfactory service. These units are manufactured by the Pacific Signal Company 3511 Virginia Street, Lynwood, California, Mr. C. A. Glick, Manager. Last price quotation was \$225 f.o.b. Lynwood.

This device has been service tested by the CAA Technical Development Experimental Station, Indianapolis 21, Indiana, from whom detailed operational information may be obtained. Briefly, the device turns on the runway lights when an aircraft flies directly over the microphone mounted metal reflector which is normally located in the vicinity of the airport tetrahedron, which is continuously lighted. The unit is equipped with an automatic turn-off which can be set for any period of time, i. e., 10-15 minutes, so that false operation from any cause is not a serious problem.

CAB REAFFIRMS STAND ON NON-MAIL CARRIERS

CAB's position that it has authority to permit non-mail carriers to transport mail, but that no need exists for such mail service at the present was maintained on March 17th in action on reconsideration petitions. Original position was stated last December. Members Denny, Lee, and Adams again voted that CAB can authorize non-mail carriers to carry mail at service rates. Denny joined Chairman Gurney and Member Ryan, however, in turning down bids of Slick, Flying Tigers, and Riddle.—Am. Avn. Daily

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